Mar.

PAT-NO:

JP405233329A

DOCUMENT-IDENTIFIER:

JP 05233329 A

TITLE:

MICROCOMPUTER

PUBN-DATE:

September 10, 1993

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APPL-NO:

JP04072533

APPL-DATE:

February 20, 1992

INT-CL (IPC): G06F009/46

ABSTRACT:

PURPOSE: To perform fast processing for task switching and the saving and

restoration of a register, etc., by providing a switching control means which

performs the fast processing for the task switching between a central processing unit and an operating system.

CONSTITUTION: A task part executes the <u>task switching</u> when the occurrence of

a system call to perform the $\underline{\text{task switching}}$ at a time when software interruption is performed is recognized, and a switching control part 1 applies

wait to a CPU. The CPU saves the value of a stack <u>pointer</u> 8 to a stack <u>pointer</u>

saving register 6, and copies the value of a register file address 5 on the

stack <u>pointer</u> 8. The value of the register 8 is copied on the preservation

area of a register file 7 indicated by the $\underline{pointer}$ 8, and processing of system



call is executed. Thence, a bit with the highest priority in a ready task

register 2 is set on a run task register 3, and the address of the register

file 7 is set on the address 5. After the processing is completed, a restoration instruction is issued to the CPU.

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